

Syphilis Morbidity Reporting by Private Physicians

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THE PROCESS by which private physicians report cases of communicable disease has often been a source of concern to public health officials. These officials have feared that reports were incomplete and were an unreliable basis for attempts to measure a communicable disease problem.

Syphilis case reporting presents certain distinctive difficulties in addition to those characteristics of general communicable disease reporting. This paper will describe how a group of North Carolina physicians view this problem. These physicians were questioned about the extent to which they reported cases of syphilis, their reasons for reporting or not reporting, and their opinions on the proper use of case reports by health departments. The interviews were carried out in the course of a more comprehensive survey of public health problems in the management of syphilis by private physicians.

Syphilis case reports are needed by official health departments as an index of the extent of the syphilis problem and also as a basis for initiating specific preventive action—particularly contact investigation. At present many authorities believe that, because of the lowered

cost of treatment, an increasing proportion of patients with early syphilis are seeking treatment from private physicians rather than from free clinics sponsored by health departments (1). If this is true, organized syphilis control activities may become increasingly dependent on the accuracy and completeness of physicians' reports.

Collection of Data

Our data consist of what physicians said about their own practices, opinions, and attitudes. Systematic observations of their work were not done as part of this study. Our principal informants were 74 practicing physicians in 5 counties and 2 cities of central North Carolina. These physicians included all general practitioners and internists practicing in the 5 counties and in 1 city (25,000 population), excluding a few physicians from these areas who were interviewed during the pretesting of the interview schedule. The physicians from the other city (70,000 population) included all Negro general practitioners and internists and a sample constituting one-third of all white general practitioners and internists (exclusive of the full-time staff of a teaching hospital) chosen at random. Of the total of 74 physicians, 64 were general practitioners and 10 were internists; 59 were white and 15 were Negro. Four well-organized local health departments served the study area.

Pretesting interviews were carried out during the winter of 1951-52 with a separate group of 27 private physicians and 8 public health

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physicians from the same general area. The 74 standardized interviews were carried out in April and May 1952.

In the analysis of data, physicians' answers were grouped together in appropriate categories. Sometimes more than one answer would be given to a question, the informant indicating alternative actions he might take under various circumstances. Therefore, percentages of physicians giving various types of answers may add to more than 100 percent. During both pretest and standardized interviews, many of the comments by physicians were written down verbatim. Examples will be given to illustrate the kinds of individual response grouped into particular categories.

Response by Physicians

Physicians were asked whether they would report their syphilis cases by name to the health department. Answers were immediately classified by the interviewer according to a scale, as shown in table 1. Over one-third of the physicians claimed to report all cases, while less than one-tenth of the group asserted they never reported a case. On the other hand, two-thirds admitted failure to report at least some cases. The most important fact emerging from table 1 is that it tends to confirm the presence of a real problem centered in the reporting process.

Reporting Practices

Depending on their initial answer, physicians were asked alternative questions as to why they did or did not report syphilis cases. Answers to these questions are summarized in table 2. Doubts as to the confidentiality of reports and the closely related factor of patient status were the outstanding reason for "not reporting" cases, followed by indifference or hostility to the administrative paper work required. Outstanding among reasons "for reporting" cases were an awareness that "it's the law," plus recognition of the value of case reports to the health department (*a*) for carrying out specific control activities or (*b*) for statistical studies.

Twenty-nine, or about 40 percent, of the physicians expressed concern that the identity of their patients would not remain secret and that patients would suffer as a consequence.

Table 1. Physicians' answers to question: "When you find that a patient has syphilis do you report his name to the health department?"

Reply	Physicians replying	
	Number	Percent
Report all cases.....	26	35.2
Generally report, sometimes do not report.....	17	23.0
No general policy or tendency.....	6	8.1
Generally do not report, sometimes do report.....	19	25.7
Never report a case.....	6	8.1
Total.....	74	100.1

Reasons given by individual physicians for this fear included:

1. Chances of improper disclosure multiply as each additional person has legitimate access to information.

2. Health department clerks are not adequately trained in medical ethics.

3. Health department offices sometimes are not physically adequate for protection of confidential information.

4. Though the health department employee may keep information confidential, his own knowledge may harm the patient indirectly, particularly in small towns and rural areas.

5. Specific incidents, not necessarily involving a case of syphilis or even the health department, have impressed the physician with the speed of travel of gossip and rumor.

The following statements illustrate these points of view:

"Most people don't want everyone knowing they have syphilis. When three people know anything, it's out."

"I'm sure that the nurses and other trained persons at the health department keep things confidential. But the clerk is hired right here in town and has had no particular training. She might not keep things confidential."

A health officer interviewed during pretesting of the interview schedule: "Often the physical facilities are such in health departments that information cannot be kept confidential. . . . In my own health department, I share an office with five other persons. Sometimes it has been impossible to have records

Table 2. Factors influencing physicians' decisions not to report or to report syphilis cases as a general rule or in individual instances

Factors influencing decision	Number of physicians replying	Percent of 74 physicians
<i>Not to report</i>		
Fear that information about patient will not remain confidential	29	39.2
High status of patient or personal friendship of physician for patient	10	13.5
Hostility to "making reports" and "red tape"; indifference; "no reason"	10	13.5
Various clinical characteristics	5	6.8
Ability of patient to cooperate with physician	2	2.7
Miscellaneous	5	6.8
<i>To report</i>		
Legal requirement to report	20	27.1
Recognition of health department's need for case reports in order to carry out control measures with individual patients and families	19	25.7
Recognition of health department's need for case reports for statistical studies	11	14.9
Inability of patient to cooperate with physician	9	12.2
Patient being referred to health department for treatment	7	9.5
Various clinical characteristics	5	6.8
Miscellaneous	5	6.8

locked up and we have found evidence that the janitor and janitress have looked through records."

"A few prominent patients would be reported as 'X' rather than by name. This is because they know people who work in the health department. In a small town you have to consider this even though the clerk in the health department here is a very fine person."

"One of my patients had a blood test done which was negative. A friend of hers, who worked in the public health lab, told her, 'I saw your blood going through.' I figured this friend might tell if someone had a positive test, so I use numbers and don't report by name."

The patient's status was cited by 10 physicians (14 percent) as a factor influencing their reporting practices.

"If the patient was a friend or an outstanding person in the community I wouldn't report his name to the health department. No good would be accomplished by having it publicized."

Ten physicians mentioned the work involved

in reporting or said they simply neglected or forgot to report cases.

"I have no scruples against it. I just don't do it."

"It takes too much time and red tape. I know the statistical value and contact tracing value, but there is too much time required of the doctor and no compensation given."

Two physicians stated that cooperation on the part of the patient in following orders would influence them not to report while nine physicians stated the converse—that lack of cooperation would influence them to make a report. Case holding during therapy itself is no longer the problem it once was; however, adequate followup is still a long-term process which does require understanding and cooperation by the patient.

Certain clinical characteristics of individual patients were named as reasons for "not reporting" by five physicians. These were "old cases," "partially treated cases," "cases with a 'doubtful' blood test," and "noninfectious cases." Other clinical characteristics were named by five physicians as reasons "for reporting." These were "prenatal patients," "infectious cases," and "seroresistant cases." In general, the first group of characteristics suggests less urgent need for action on the part of the health department than does the second group of characteristics. This is an encouraging finding; however, it would not be justifiable, on the basis of these data alone, to conclude that all or even most of the cases regarding which the health department should take action would be selected by the physician for reporting.

In general, the interviewer gained a distinct impression that physicians were uncertain about how to answer the question: "Why do you report?" Lack of cooperation by the patient and the clinical characteristics of the case have been mentioned. The most frequent answers were that reporting was required by law, that reports were needed for control measures centered around the individual case (for example, contact investigation and followup), and that reports were needed for statistical studies (table 2). But to the interviewer, the answers seemed vague, and few concrete examples were given from the doctor's own experience.

"It's the law."

"The only reason I know for reporting is that public health has helped by taking over syphilis. There used to be many inadequately treated cases."

"I feel cases should be reported. I'm not sure why. I have just been led to that opinion by the health department."

Seven physicians mentioned that some cases would be reported merely as a part of the process of referring them to the health department for treatment. Finally, a variety of miscellaneous reasons were cited by a very few physicians each to explain why cases were or were not reported. A few are of possible importance though not mentioned frequently by our informants, for example:

"The reporting of infectious disease has been backsliding for years. It's silly to report measles and chickenpox. This attitude carries over to the reporting of syphilis. We report polio, typhoid, TB—but we don't report syphilis as well as we should."

As stated above, our informants recognized certain uses which a health department might make of case reports. Additional questions were asked to learn more about physicians' concepts of the role, actual and desirable, of the health department in control measures aimed at the private patient.

Health Department Control

Forty-nine physicians, excluding the 25 who never or only rarely make a case report by name, were asked: "In your opinion, should the health department take any action when a private doctor reports that one of his patients has syphilis?" The type of "action" which might be taken was purposely left unspecified. Answers are shown in table 3.

The majority of the physician informants had reservations about health department "action" (table 3). One-tenth said that the health department should take no action and mentioned no exception. About 40 percent said action should be taken only on the specific request of the private physician. And it is probably fair to say that the one-third who rarely or never report their cases would also be opposed to the health department taking any part in the management of their private patients. Finally, a minority of 10 (14 percent) informants voiced definite opinions that the health

department should take specific types of action—investigation of contacts, followup of patients to insure adequacy of treatment, or education of the patient.

A possible explanation for physicians' reluctance to have the health department carry out specific control measures with private patients is that the physicians are uninformed or misinformed as to what this action might be. For example, physicians have traditionally feared and opposed any third person working independently with their patients, thus possibly interfering in the physician-patient relationship.

Actually, according to the health officers, all four local health departments in the areas surveyed followed a policy of not making any contact with the patient or members of his family, except with the approval of the private physician. To study physicians' knowledge of this policy, all 74 informants were asked: "In this county, does the health department usually contact the patient or family directly when a doctor reports a case of syphilis?" Answers are summarized in table 4.

The majority (57 percent) thought, correctly, that the health department did not contact the patient or family directly, that any contact was

Table 3. Physicians' answers to question: "Should the health department take any action when a private doctor reports that one of his patients has syphilis?"

Reply	Physicians	
	Number	Percent
Health department should take action-----	10	13.5
Investigate contacts-----	(6)	(8.1)
Check to see that patient completes treatment-----	(5)	(6.8)
Send patient educational literature-----	(1)	(1.4)
Health department should not take action unless specifically requested by private physician-----	29	39.2
Health department should not take action (no exceptions mentioned)-----	8	10.8
Other-----	2	2.7
Question not asked because physician rarely or never reports a case by name-----	25	33.8
Total-----	74	100.0

initiated on the request of the private physician. However, 30 percent were uncertain, and 12 percent thought that the health department took independent action when a case report was made. Of the latter group of 9 physicians, 5 rarely or never reported cases; 1 usually reported his cases but was opposed to the health department's initiation of any control measures on the basis of the reports, and 3 physicians said they reported all cases and felt that the health department should proceed on its own initiative with contact investigation.

If a health department is to carry out control measures related to the private patient on whom a report of syphilis is made and yet is not going to bypass the physician, a basic action is to initiate discussion of the case with the physician. Health department and physician together must arrive at some working arrangement as to what is to be done, and by whom. A logical extension of this type of health department action is to contact the private physician who has submitted to the laboratory a blood sample which is positive to a serologic test for syphilis (STS)—if a case report is not received in 2 or 3 weeks. (To make this procedure practicable, a central file must first be checked to eliminate previously reported cases.) If the diagnosis is complete, assistance can be offered to the physician and a case report can be made immediately. If the health department laboratory performs most of the STS for the area, the completeness of case reporting and the extent

Table 4. Physicians' answers to question: "In this county, does the health department usually contact the patient or his family directly when a doctor reports a case of syphilis?"

Reply	Physicians	
	Number	Percent
No, health department does not usually contact patient or family directly.....	42	56.8
Not certain or do not know.....	23	31.1
Yes, health department usually does contact patient or family directly.....	9	12.2
Total.....	74	100.1

of use of health department control services should increase markedly.

At the time of the survey, none of the four health departments in the study area were carrying out the policy described. Since other areas of the country had reported success with such a policy (2), we endeavored to find out whether or not our informants would view it with favor. The answers of the 74 informants to this question are shown in table 5.

Table 5 suggests that the physicians were more favorable toward this specific type of health department action than toward the general idea of control activities directed at their syphilitic patients. Fifty-seven percent indicated they were in favor of the policy outlined, 26 percent were opposed to it, and 18 percent made comments that could not be definitely classified as favorable or unfavorable.

Interesting arguments were given for and against the hypothetical policy. Some physicians felt such a policy would be of definite help to them in clinical management and in preventing patients from being lost to medical observation:

"This would be an excellent policy because we lose patients. My partner and I see 70 to 80 patients a day. When we get through the day we don't have time to trace people down. I write the patients letters and they ignore them. The public health nurses could get out and run them down."

"This policy would leave no loopholes. It would make sure the doctor gets the blood test report. It would find whether or not the health department can be of help. It would save the doctor time. This is a factor in general practice."

Other physicians felt that the hypothetical policy would be unnecessary and expensive:

"It would be all right. But I feel the measures already being done are handling the problem pretty well. I used to find 15 percent positive tests, and only about 1 percent now."

"It seems to me there would be a duplication of effort. Here we try to reduce the health department work to a minimum. I feel this policy would not be necessary."

Again, some doctors felt that initiation of discussion of the case by the health department would be an objectionable interference in the physician-patient relationship, some mentioned their dislike of having the government involved in their work, and some objected to the

Table 5. Physicians' answers to question: "Some health departments have the policy that whenever a doctor sends to the laboratory a blood sample that is STS positive, the health department contacts the doctor, discusses the case with him and offers assistance. What do you think about such a policy?"

Reply	Physicians replying	
	Number	Percent
In favor.....	42	56.8
Opposed.....	19	25.7
Other.....	13	17.6
Total.....	74	100.1

health department taking the initiative away from them:

"I think it would be a good thing but I just don't like government interference."

"I wouldn't like this. It's better to leave it up to the doctor. This policy takes the initiative away from the doctor—undermines his interest in the case. And as a general rule the doctor will take more personal interest than the health department will in the patient."

One internist who favored the policy in general thought it should not be applied too rigidly. If the health officer had confidence in a particular doctor, he could assume that that doctor would "carry through with what was needed." If another doctor had not shown too much interest in syphilis, it might be necessary for the health officer to "keep in pretty close touch with him."

In summary, tables 3-5 suggest that physicians were suspicious of the general idea of health department participation in patient management (table 3); however, at the time of the interviews, they generally did not feel that the health department was participating to an objectionable degree (table 4); and finally the majority were willing for the health department to participate to a greater degree by at least initiating inquiries of the physician based on positive STS reports (table 5).

Discussion

Many problems and issues arise in the process of obtaining and using syphilis case re-

ports. The data presented have bearing on several of these problems.

Completeness of Reporting

The first and most important problem pertains to completeness of reporting. We cannot make a numerical estimate of the completeness of reporting by our informants, but it appears reasonable to conclude that many cases were not being reported.

This general conclusion is in agreement with a number of studies from other areas and periods of time. Rock (3) studied a series of 436 cases of syphilis from the Eastern Health District of Baltimore discovered by private physicians during 1932-37 and found that only 71, or 16 percent, had been reported to the Baltimore City Health Department. The Report of the WHO Syphilis Study Commission (4) states that in the United States "reporting by private physicians is variable, and, from our information, appears to be low." Lentz and Beerman (5) in 1952 mailed a questionnaire to all physicians known to be in private practice in Philadelphia. Replies were received from 75 percent of the physicians, who indicated that in 1951 they had treated 3,112 cases of syphilis. During the same period, the Philadelphia Department of Public Health had received reports for only 753 cases—less than 25 percent of the total treated, even assuming that physicians not replying to the questionnaire had discovered no syphilis.

Judging from the information received from our informants, the most serious obstacle to complete reporting is the desire of patient and physician to keep the diagnosis of syphilis a secret. The stigma attached to venereal disease has probably decreased in recent years, but it is unlikely to disappear entirely. Apparently, the physician often feels he must choose between a risk to his patient which is concrete, obvious, and within the physician's experience and a possible value to the community which is vague at best.

Keeping Reports Confidential

Certain steps can be taken by a health department to insure that case reports remain confidential. Physical inadequacies which make records and files accessible to unauthor-

ized persons can be attacked directly. Clerical and other personnel can be given additional training and supervision in the handling of confidential records. If these accomplishments are brought to the attention of physicians, they may feel free to submit more complete reports.

But there are limits to how effective these measures can be. When the health department employee who receives a report of a case of syphilis is a personal acquaintance of the syphilitic patient, harm may have been done the patient even if information travels no farther. This will be a particular problem in rural areas and small towns. And despite all precautions, the length of the route of communication in the reporting process (doctor's office to local health department to State health department) allows many possibilities for information to be diverted into improper pathways.

High social status of the patient and his willingness to cooperate with the physician influence the latter's decision not to report a case of syphilis. These factors cannot be altered directly by health department action, except by the above measures and by any other action which gives the physician and his patient greater faith in the confidentiality of the reporting process.

Simplifying Reporting

Some informants complained about the "red tape" of the reporting process. It is true that somewhat more effort and specialized knowledge are required to complete the usual syphilis report form than to make a report of most of the other communicable diseases. Possibly the total volume of paper work required of the physician could be reduced by eliminating so-called compulsory, but probably very incomplete, reporting of some of the common communicable diseases, such as measles, for which there is no very effective control program in operation.

This would leave the physician with more time for, and possibly more interest in, the reporting of diseases, such as syphilis, which are more important from the standpoint of specific preventive action which can be taken by the health department. The American Public Health Association's manual, *Control of Communicable Diseases in Man* (6), has re-

cently reemphasized that: "Diseases are often made reportable although the information gathered is put to no practical use. This frequently has the result that the general level of reporting deteriorates, even for diseases of much importance. Better case reporting is usually to be had by restricting official reports to those diseases for which control services are provided, or potential control measures are under evaluation, or epidemiological information is needed for a definite purpose."

Reasons for Reporting

While our informants had quite substantial reasons for "not reporting" syphilis cases, their reasons "for reporting" seemed vague and unconvincing. The health department may be able to take steps which will increase physicians' positive motivation to report cases.

Despite the fact that all States require that syphilis be reported, the law is seldom enforced. Nor does it seem likely that attempts at real enforcement would be successful.

It may be possible to increase physicians' interest in contributing to good statistical data. We have no definite recommendations for accomplishing this. A means will have to be found to make syphilis morbidity data of more concrete interest and value at the local level. At present, if the physician does see the data he has contributed, it is usually in the form of consolidated figures for State or Nation. He may see local rates in his health department's annual report, but these also are not of dramatic interest, and they lack the respectability associated with large numbers.

Next to the legal requirement, the factor most frequently mentioned as influencing our informants to report cases of syphilis was an awareness that the health department needed the reports to carry out certain control measures with individual cases. A health department should make it clear to private physicians that, with rare exceptions, staff members do not attempt to carry out these measures without notifying and coordinating their efforts with the physician. This knowledge should help the physician who fails to report a case because he fears the health department will harass the patient. Also it will be of interest to the occasional physician who expects and wants the

health department to go ahead routinely with such procedures as contact investigation and followup when he makes a case report. He should know that if he wants these procedures done he must specifically request them.

Use of Laboratory Records

Despite all the various measures which can be suggested to improve reporting, it seems unlikely that complete reporting can be achieved on a voluntary basis. Reporting can be made a more nearly compulsory procedure if the health department has access to a large part of the reports of STS done in the area, and if it uses these as the basis for case reports. For this procedure to be completely successful, the health department laboratory must perform most of the STS done in the area, or there must be a voluntary arrangement giving the health department laboratory access to positive STS reports from private laboratories. A recent Public Health Service manual gives a clear outline of the details of this reporting system (7).

The majority of our informants were in favor of the laboratory records of positive STS being used in this way (table 5). The health department carrying out such a policy must decide how much time and effort can be devoted to it. The work can be kept to a minimum. Report cards can simply be mailed to a physician for each patient on whom a positive STS report is received and for whom no case report is on file. Or a great deal of effort can be expended. Physicians can be telephoned, and a case report can be made out at that time, making it convenient for them to request information about clinical problems or help in followup and contact investigation. As suggested by one informant, more time may need to be spent with some physicians than with others. Or it may be of interest periodically to devote particular study and effort to specific types of cases, for example, infectious syphilis, or perhaps central nervous system syphilis.

Actually, according to a personal communication dated June 4, 1956, from Dr. Warfield Garson, chief, venereal disease section, North Carolina State Board of Health, since 1953 (about 1 year after this survey) the general procedure outlined has been carried out in

North Carolina with STS reports emanating from the State laboratory of hygiene.

Whenever a case of possible primary or secondary syphilis is brought to the attention of the State board of health through surveillance of laboratory reports, a confidential serology report is routinely sent to the county health officer in the physician's area. The health officer is requested to contact the private physician concerning reporting the case and to offer consultative, diagnostic, and epidemiological aid. In many instances, a venereal disease investigator on the staff of the State board of health or the county health department gets in touch with the physician and attempts to make a working arrangement for carrying out contact investigation and other indicated public health measures. These procedures have allowed for an increase in private physician reporting of syphilis from 7 percent of the total cases in 1953 to 35 percent in the fiscal year 1956.

As suggested by our informants, some physicians may resent this type of health department action. Depending on local circumstances, the benefits may or may not be worth the price. Additional physicians may begin to send their blood specimens to private laboratories in order that the health department will have no record of the tests. Others may choose to use initials or code numbers instead of correct names on the laboratory slip. However, when this happens the health department could still conceivably discuss the case with the physician, clinical and epidemiological problems could be reviewed, and contacts could be reported for investigation.

Summary

During a survey of public health problems in the management of syphilis by private physicians, 101 private physicians and 8 public health physicians in central North Carolina were interviewed. This report discusses survey findings relating to case reporting. Results are based chiefly on interviews during 1952 with 74 private physicians who answered a set of standardized questions.

Two-thirds of the 74 informants indicated that they did not submit case reports on some of their private syphilitic patients. The most

frequent explanation for "failing to report" cases of syphilis was fear that the information would not remain confidential.

Most frequent reasons "for reporting" cases were that it was legally required, that the health department needed reports in order to carry out specific control procedures, and that reports were needed for statistical studies.

The majority of informants said they would be in favor of the health department using positive reports of serologic tests for syphilis (STS) on blood samples sent to the public health laboratory, as a basis for case reports. However, a sizable minority were opposed to or undecided about this procedure.

The findings of this survey cannot be applied uncritically to other areas. However, certain lines of action by health departments to improve syphilis morbidity reporting are suggested:

1. Do everything possible to protect the confidentiality of syphilis case reports. Consider physical protection (files and locks), the number of people having access to reports, and the training of personnel in medical ethics. Let physicians in the community know the measures being taken to keep reports secret.

2. Restudy the entire communicable disease reporting system and, where possible, eliminate paper work required of the physician.

3. Try to devise ways for making good statistical and epidemiological use of case reports in the local community so that physicians can see the contribution they are making when they report cases properly and completely.

4. Let physicians know that the health department does not attempt to work directly with individual private patients without the physician's knowledge and permission.

5. Consider the advantages (and disadvantages) of using laboratory reports of positive STS as a basis for obtaining complete or nearly complete case reports, for making services such as contact investigation, followup, and clinical

consultation easily available, for keeping in touch with the relative quality of syphilis management in private practice, and for making occasional special studies of particular types of cases.

REFERENCES

- (1) Smith, C. A.: The private physician in venereal disease control. *South. M. J.* 48: 169-175 (1955).
- (2) Sklar, B. H., and Schuman, L. M.: Stimulating venereal disease morbidity reporting by private physicians. *J. Ven. Dis. Inform.* 30: 160-164 (1949).
- (3) Rock, R. E.: A study of cases of syphilis in the Eastern Health District under the care of private physicians. Doctor of public health thesis, School of Hygiene and Public Health, The Johns Hopkins University. Baltimore, 1938.
- (4) World Health Organization Syphilis Study Commission: Venereal disease control in the USA. WHO Technical Report Series No. 15. Geneva, May 1950, p. 22.
- (5) Lentz, J. W., and Beerman, H.: The treatment of venereal disease in private practice in Philadelphia. *Am. J. Syph., Gonor. & Ven. Dis.* 37: 427-438 (1953).
- (6) Control of communicable diseases in man. An official report of the American Public Health Association. Ed. 8. New York, N. Y., American Public Health Association, 1955, p. 7.
- (7) U. S. Public Health Service: Morbidity reporting in venereal disease control. Public Health Service Pub. No. 481. Washington, D. C., U. S. Government Printing Office, 1956.

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This paper is the eighth in a series of reports on the North Carolina Syphilis Studies. The organization and original field of operation were described in a report published in the February 1949 issue of the Journal of Venereal Disease Information. The present study area included the original area plus two additional counties and one additional town. The study was supported by the Division of Venereal Disease of the Public Health Service, the North Carolina State Board of Health, and the School of Public Health of the University of North Carolina.

technical publications

Directory of State and Territorial Health Authorities, 1956

PHS Publication No. 75.
Revised 1956. 86 pages.
35 cents.

Revised annually, this directory lists, as of May 1956, the title and location of each State health department and the name of the officer in charge; organizational units of individual States with the names of officials directing the units. Also included are officials of State agencies other than health agencies directing grant-in-aid programs; and State agencies officially designated for the administration of the Water Pollution Control Act and crippled children's services.

Personnel of the Public Health Service in charge of functions closely associated with State health departments are listed in the appendix.

Research Grants and Fellowships Awarded by the Public Health Service in 1955

PHS Publication No. 469.
1956. 83 pages. 30 cents.

This annual report lists the research grants and fellowships awarded by the Public Health Service to non-Federal institutions and to individuals for support of research and training in medical and related sciences for the period July 1, 1954, through June 30, 1955.

A preliminary statement explains briefly the entire awards program and summarizes the awards by the seven categorical institutes and the Division of Research Grants for fiscal 1955.

The listings are alphabetically arranged by State or countries, institutions, and investigators or fellows.

Following the name of the investigator is a brief descriptive title of the research, an identifying number which indicates the supporting institute, and the funds awarded for fiscal 1955. Names of fellowship recipients are interspersed alphabetically among research investigators. The type of fellowship, the department of the institution in which the recipient holds his fellowship, and the sponsoring institute are indicated.

Vital Statistics of the United States, 1954 Volume I

NOVS Publication.
422 pages. \$3.75.

This volume contains detailed, final statistics for 1954 on marriage, divorce, birth, and fetal and infant mortality for the United States, each State, each county, certain cities, Alaska, Hawaii, Puerto Rico, and the Virgin Islands. Summary tables of rates and percentages and an explanatory text are also included.

An extensive introduction explains sources, classification, and interpretation of data, and columns of the life tables.

Issued previously, volume II (1956) comprises particular statistics of mortality in 1954 by State, cause, race, sex, and age, for the areas listed above.

Operational Memoranda on Economic Poisons

PHS Publication (unnumbered).
1956. 99 pages. Multilithed.

A guide to the use of public health pesticides, this revised edition describes 23 of the newer insecticides and rodenticides.

It gives the chemical name, chemical formula, physical properties, formulations, precautions, and use experience. Information on approximate costs and tabular data on formulations and measurements is also included.

Public health officials who plan or conduct insect or rodent control programs should find this booklet particularly useful.

Copies can be obtained from the Communicable Disease Center, Public Health Service, Atlanta 23, Ga.

An Outline Guide Covering Sanitation Aspects of Mass Evacuation

Public health problems in civil defense

PHS Publication No. 498.
28 pages. 1956. 50 cents.

This booklet is intended as an aid to Federal, State, and local health and civil defense agencies in developing comprehensive plans for sanitation, should it become necessary to move urban populations to rural territory.

The expanded outline covers methods of protection from radioactive fallout for evacuees during transit, at assembly areas, in temporary shelters, and in reception areas.

The publication also defines civil defense terms and describes emergency sanitation procedures.

This section carries announcements of all new Public Health Service publications and of selected new publications on health topics prepared by other Federal Government agencies.

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